

MAR 12 1987

State of Illinois

Dept. & Div. ILL EPA-MPCP Inspector Gay L. McArthur Date 2/20/86
 (Signature) CONTROL PROGRAM
 Mine Name FIDELITY #11 Mine Company FREEMAN UNITED COAL Comp

IEPA M & M
 Permit No. IL000302 Permit No. _____ County PERRY

General Location Approx 5 miles West of DuQuoin

Arrival Time 10 AM Weather Conditions HOT PARTLY CLOUDY

RECLAMATION TYPE (Check Appropriate Type)

Mine Includes Prime Land Yes/ No
 Steep Slope Rule Applies Yes/ No
 Coal Preparation Yes/ No
 Not Applicable Yes/ No

Reason for Visit: ROUTINE

Persons Contacted: GLENN HAMILTON - RECLAMATION Sup.

PARAMETER CHECKLIST

1. Availability of: A permits B Plans
2. Imminent Danger to Public Health and Safety _____
3. Significant Imminent Environmental Harm _____
4. Signs and Markers: A. mine entrance B. perimeter C. blasting D. topsoil E. perimeter observance 1. 100' zone 2. 300' zone F. permit area correlation G. not investigated H. not applicable
5. Disposal Spoil and Waste Material Outside Pit or Direct Cast Site: DA gob disposal
 1. site capacity 2. covering 3. vegetation B. within permit area C. site approved
 D. slope of site E. steep slope rules F. valley fill or head of hollow fills:
 1. permit area 2. location near ridge top 3. fill design 4. fill construction
 5. steep slope rules 6. under drains 7. lateral drains 8. controlled placement
 9. engineer inspection G. not investigated H. not applicable
6. Soil Handling: A. removal before other disturbance B. storage C. protection
 D. thickness E. root medium F. other overburden G. toxic material handling
 H. root medium satisfactory for top soil replacement (slope, thickness, texture,
 I. topsoil replaced J. grading current K. rills and gullies L. erosion control
 systems M. timely revegetation and mulching DA not investigated O. not applicable
7. Prime Land: A. prime land determination B. soil horizon removal prior to other
 disturbance C. thickness removed D. approved horizon storage E. protection of
 stockpiles F. horizon replacement and thickness G. protection of replaced horizons
 H. grade DA not investigated J. not applicable
8. General Water Quality and Hydrology: A. waterways 1. unaffected area drainage
 diverted DA affected area drainage ditches and berms 3. system maintenance B. grading
 C. vegetation D. toxic material E. horizontal boreholes DA sediment ponds: 1. size
 2. structure 3. spillway 4. clean out 5. over 20' high or over 20 acre feet storage
 (yes/ no) 6. seepage 7. structural weakness 8. discharge structure 9. chemical
 treatment system 9. (a). permitted yes/ no DA discharge water quality H. buffer
 zone (100') observance I. zone markers DA NPDES permits required yes/ no
 K. water quality L. not investigated M. not applicable

☐ TEMPORARY REPORT
☒ FINAL REPORT



Mine Name

Fidelity #11

9. Stream Channel or Other Water Diversion: (A) temporary or permanent B. size adequacy C. stability D. gradient E. grade stability F. suspended solids G. sediment control H. channel design I. erosion control structures J. fish and wildlife protection K. vegetation L. removal of temporary structures M. structure removal procedures N. not investigated O. not applicable
10. Road Hydrology: A. culverts (B) ditches C. location choice D. grade E. stream closeness F. ditch relief drains G. outslope drains H. construction material toxic/ non-toxic I. maintenance J. railroad spur hydrology K. vegetation L. not investigated M. not applicable
11. Impoundment Structures: A. M.H.S.A. construction observance B. coal waste in structure C. freeboard D. stability E. seepage F. engineer inspection G. dam marker H. maintenance I. ditch and spillways J. changes in geometry of structure (K) not investigated L. not applicable
12. Steep Slope Procedure: A. spoil on outslope B. debris C. highwall removal D. disturbance above highwall E. excess spoil F. instability of spoil and woody material G. not investigated (H) not applicable
13. Preparation Facility (includes crushing and screening): (A) water circuit 1. open system 2. closed system 3. no water circuit (B) slurry impoundment (1) berm stability a.) seepage (b.) vegetative cover c.) freeboard 2. acid producing potential C. not investigated D. not applicable
14. Domestic Wastewater Treatment Facilities: A. type of system 1. activated sludge package plant 2. lagoon - sandfilters 3. septic tank w/sand filters 4. other B. sand filter maintenance 1. weeds 2. raking 3. sand replacement C. chlorination D. certified operator (E) not investigated F. not applicable

LEGEND: O = parameter inspected: Ø = comment or question on the parameter

NOTE: Items circled were considered during this investigation. If nothing under a major item was investigated, circle either "not investigated" or "not applicable". Violation means violation or apparent violation.

 NO VIOLATIONS FOUND

✓ SEE ATTACHMENT

Indicated Parameter			Comments or Action Taken		
Check Column					
No.	Vio- lation	Non-Vio- lation			
GEN		✓			
Comm		✓			
5A		✓			
8F		✓			
8G		✓			
8J		✓			
9		✓			

ATTACHMENT

Fidelity #11
Freeman United Coal Company
August 20, 1986

GENERAL COMMENTS: During the investigation I spoke with Glen Hamilton, Reclamation Supervisor, in regard to the relocation of outfall designations for the southernmost sedimentation pond. I told Mr. Hamilton that this Agency lacked information as to the exact location where the proposed outfall 006 is to be located. On maps already submitted the outfall designation was at the junction of Youngs Creek and the recently constructed ditch that receives effluent water from the southernmost sedimentation pond. I explained that effluent standards must be met as water leaves the sedimentation pond (which is in accordance with NPDES Rules and Regulations). Mr. Hamilton said that he would speak with Bill Smith, Permit Manager, to make the correction on future permit modifications.

Mr. Hamilton and I walked the perimeter of the gob pile and observed the "moat" which collects surface runoff water from the outslopes of the gob pile and in some cases seepage water. The moat appears to be silting in considerably and may need to be cleaned in the near future.

5A: Mr. Hamilton and I observed the gob disposal area which appears to be progressing well and in accordance with the approved plan.

8F: The southernmost sedimentation pond formerly having outfall designation 005, is now outfall 006. Due to the encroachment of mining activities to the east, surface water runoff now enters the southeast section of the pond where before it flowed out of the pond. An application to change outfall designations has been submitted, but has not been approved yet.

8G (8K): During the investigation, I obtained some water samples and prepared and shipped them to this Agency's Champaign Regional Office lab for analysis. The results of the analyses are as follows:

Sample #1 - obtained from Panther Creek near the railroad tressle west of the preparation plant. The creek was flowing at an undetermined rate and the water sample appeared cloudy.

Lab #B13551

Total Iron	1.8 mg/l	pH	7.9
Manganese	0.31 mg/l	Alkalinity	185 mg/l
ROE	1960 mg/l	Total Acidity	0

Sample #2 - obtained from outfall 002 just northwest of the preparation plant. Water was being discharged at approximately 200 gallons per minute and the water sample appeared clear.

Lab #B613552

Total Iron	0.4 mg/l	Susp. Solids	11 mg/l
Manganese	0.24 mg/l	pH	8.0
Chlorides	8.0 mg/l	Alkalinity	212 mg/l
Sulfates	1640 mg/l	Total Acidity	0
		ROE	2670 mg/l

Sample #3 - obtained from Panther Creek at the Rt 152 bridge. The creek was flowing at an undetermined rate and the water sample appeared cloudy.

Lab #B613553

Total Iron	1.6 mg/l	pH	8.0
Manganese	0.34 mg/l	Alkalinity	173 mg/l
ROE	1640 mg/l	Total Acidity	0

In the above samples, Sample #1 was the downstream sample and Sample #3 was the upstream sample.

8J: This site is permitted under NPDES Permit IL000302. Note: All DMRs have been submitted in accordance with permit conditions.

9: More work still needs to be done to the channel that transport effluent water from the southernmost sedimentation pond to Youngs Creek. The channel still requires some stability measures which includes seeding and rip-rap.


Gary L. Minton
Environmental Protection Specialist

GLM:br/B45/2-20-87

cc: MPCP/FOS/Marion
IDMM

Sample
3

MPCP-20

WATER QUALITY AND WASTE TREATMENT WORKS EFFLUENT SAMPLING FORM
ENVIRONMENTAL PROTECTION AGENCY

SAMPLE COLLECTED BY:

FOR LABORATORY USE ONLY

GARY L MINTON

SAMPLE RECEIVED BY

DATE REC'D AUG 26 1986

TIME REC'D

DATE ANALYSES COMPLETED

DATE RESULTS FORWARDED OCT 8 1986

TOTAL TESTS REQUESTED

TESTS RUN

LAB SECTION CHAMPAIGN

SUPERVISOR

SAMPLING LOCATION

FIDELITY #11

UPSTREAM

PANTHER CREEK

BASIN/SUB-BASIN

TRIBUTARY

Big Mud/SAUCOUP CR/PANTHER CREEK

CARD COL.

1

1

CARD NO. 1

CARD COL.

1

2

CARD NO. 2

CARD COL.

1

3

CARD NO. 3

2 - 5 NCE BASIN CODE

6 - 7 PLANT OR STATION NO.

8 - 10 FIPS COUNTY CODE
(USE ONLY FOR PLANTS)

11 - 17 B613553 LAB ID NO.

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11 - 17 B613553 LAB ID NO.

18 I SAMPLE TYPE CODE
(SEE LIST BELOW)

18 I SAMPLE TYPE CODE

18 I SAMPLE TYPE CODE

19 - 20 86 YEAR

ARSENIC 19 - 22

PLANKTON (NO/ML) 19 - 23

21 - 22 08 MONTH

BARIUM 23 - 25

FLUORIDE 24 - 26

23 - 24 20 DAY

BORON 26 - 28

CHLORIDE 27 - 30

25 - 26 11 HOUR (NEAREST)

CADMIUM 29 - 32

SULFATE 31 - 34

27 A TIME OF DAY (A.P.N.)

CHROMIUM (HEX) 33 - 35

TOTAL SULFUR 35 - 38

28 - 30 WATER TEMPERATURE
(DEG. F.)

CHROMIUM (TRI) 36 - 38

OIL 39 - 42

31 - 33 FIELD D.O.

CHROMIUM 39 - 41

M.B.A.S. 43 - 46

PH (UNITS) 34 - 36

COPPER 42 - 45

CARBON CHLOROFORM
EXTRACT 47 - 50

TOTAL PHOSPHORUS 37 - 40

CYANIDE 46 - 49

TURBIDITY (UNITS) 51 - 54

AVG. BOD. 41 - 44

IRON (T) 50 - 53

RESIDUE ON EVAP. 55 - 58

C.O.D. 45 - 48

IRON (DISSOLVED) 54 - 56

VOLATILE SUSP. SOLIDS 59 - 62

PHENOLS 49 - 52

LEAD 57 - 60

COLOR (UNITS) 63 - 65

53 - 58 FEC COL (#/100ML)

MANGANESE 61 - 63

HARDNESS 66 - 68

AMMONIA N 60 - 63

MERCURY (MICRO GM/L) 64 - 66

ALKALINITY 69 - 71

NITRATE + NITRITE AS N 64 - 66

NICKEL 67 - 69

TOTAL ACIDITY 72 - 74

ORGANIC N 67 - 69

SELENIUM 70 - 72

Free pH 8.2 B+Q

TOTAL N 70 - 72

SILVER 73 - 76

FREE ACIDITY 75 - 77

T.D.S./ E.C. 73 - 76

ZINC 77 - 79

OTHER TESTS REQUIRED

TOTAL SUSP. SOLIDS 77 - 80

ALL RESULTS EXPRESSED AS MG/L EXCEPT WHERE OTHERWISE STATED.

☐ YES (REFERENCE REVERSE SIDE)
☐ NO

SAMPLE TYPE CODES:

A = DOMESTIC WASTE ONLY
E = INDUSTRIAL WASTE ONLY
I = MIXED DOMESTIC & INDUSTRIAL WASTE
S = STREAM, LAKE, OR RECEIVING WATER
T = MINE DRAINAGE OR WASTE
X = OTHER OR TYPE UNKNOWN

SIGN BELOW FOR EFFLUENT SAMPLE

TRANSPORTED BY J Minton

RECEIVED BY

DATE REC'D TIME REC'D AM PM

TRANSPORTED BY

RECEIVED BY

DATE REC'D TIME REC'D AM PM

Gage Height (or top of ice) or R.P. to W.S.:

Sampling Techniques: GRAB

Flow conditions (velocity etc.): UNK

Identification Nos on pH and Sp. Cond. meters:

Weather Conditions: HOT PARTLY CLOUDY

Comments and unusual conditions (indicate severity): WATER SAMPLE CLOUDY

SAMPLE
#1

WATER QUALITY AND WASTE TREATMENT WORKS EFFLUENT SAMPLING FORM
ENVIRONMENTAL PROTECTION AGENCY

MPWP-20

SAMPLE COLLECTED BY:

GARY L MINTON

FOR LABORATORY USE ONLY

SAMPLE RECEIVED BY: MP

DATE REC'D AUG 26 1986 TIME REC'D 4

SAMPLING LOCATION:

FIDELITY #11

downstream
PANTHER CREEK

DATE ANALYSES COMPLETED

DATE RESULTS FORWARDED OCT 8 1986

BASIN/SUB-BASIN

TRIBUTARY

Big Muddy / Bearup CR / PANTHER CR

TOTAL TESTS REQUESTED

TESTS RUN

LAB SECTION

CHAMPAIGN

SUPERVISOR

CARD COL.

1

1

CARD NO. 1

CARD COL.

1

2

CARD NO. 2

1

3

CARD NO.

2 - 5 NCE BASIN CODE

6 - 7 PLANT OR STATION NO.

8 - 10 FIPS COUNTY CODE
(USE ONLY FOR PLAN)

11 - 17 B613551 LAB ID NO.

11 - 17 B613551 LAB ID NO.

11 - 17 B613551 LAB ID NO.

18 I SAMPLE TYPE CODE
(SEE LIST BELOW)

18 I SAMPLE TYPE CODE

18 I SAMPLE TYPE CODE

19 - 20 86 YEAR

21 - 22 08 MONTH

23 - 24 20 DAY

25 - 26 11 HOUR (NEAREST)

27 A TIME OF DAY (A.P.N.)

28 - 30 WATER TEMPERATURE
(DEG. F.)

31 - 33 FIELD D.O.

PH (UNITS) 34 - 36 7.9

TOTAL PHOSPHORUS 37 - 40

AVG. BOD. 41 - 44

C.O.D. 45 - 48

PHENOLS 49 - 52

53 - 59 FEC COL (#/100ML)

AMMONIA N 60 - 63

NITRATE + NITRITE AS N 64 - 66

ORGANIC N 67 - 69

TOTAL N 70 - 72

T.D.S./ E.C. 73 - 76

TOTAL SUSP. SOLIDS 77 - 80

SAMPLE TYPE CODES:

- A = DOMESTIC WASTE ONLY
- E = INDUSTRIAL WASTE ONLY
- I = MIXED DOMESTIC & INDUSTRIAL WASTE
- S = STREAM, LAKE, OR RECEIVING WATER
- T = MINE DRAINAGE OR WASTE
- X = OTHER OR TYPE UNKNOWN

SIGN BELOW FOR EFFLUENT SAMPLE

TRANSPORTED BY G. Minton

RECEIVED BY

DATE REC'D TIME REC'D AM PM

TRANSPORTED BY

RECEIVED BY

DATE REC'D TIME REC'D AM PM

ARSENIC 19 - 22

BARIUM 23 - 25

BORON 26 - 28

CADMIUM 29 - 32

CHROMIUM (HEX) 33 - 35

CHROMIUM (TRI) 36 - 38

CHROMIUM 39 - 41

COPPER 42 - 45

CYANIDE 46 - 49

IRON (T) 50 - 53 1.8

IRON (DISSOLVED) 54 - 56

LEAD 57 - 60

MANGANESE 61 - 63 0.31

MERCURY (MICRO GM/L) 64 - 66

NICKEL 67 - 69

SELENIUM 70 - 72

SILVER 73 - 76

ZINC 77 - 79

ALL RESULTS EXPRESSED AS MG/L EXCEPT WHERE OTHERWISE STATED.

PLANKTON (NO/ML) 19 - 23

FLUORIDE 24 - 26

CHLORIDE 27 - 30

SULFATE 31 - 34

TOTAL SULFUR 35 - 38

OIL 39 - 42

M.B.A.S. 43 - 46

CARBON CHLOROFORM EXTRACT 47 - 50

TURBIDITY (UNITS) 51 - 54

RESIDUE ON EVAP. 55 - 58 1960

VOLATILE SUSP. SOLIDS 59 - 62

COLOR (UNITS) 63 - 65

HARDNESS 66 - 68

ALKALINITY 69 - 71 185

TOTAL ACIDITY 72 - 74 0

16 pH 8.2 B+O

FREE ACIDITY 75 - 77

OTHER TESTS REQUIRED

- ☐ YES (REFERENCE REVERSE SIDE)
- ☐ NO

Gage Height (or top of ice) or R.P. to W.S.:

Sampling Techniques: GIRAB

Flow conditions (velocity etc.) UNK

Identification Nos on pH and Sp. Cond. meters:

Weather Conditions: HOT DAY, PARTLY CLOUDY, WINDY

Comments and unusual conditions (indicate severity): WATER SAMPLE

cloudy

SAMPLE
2

INPCP-20

WATER QUALITY AND WASTE TREATMENT WORKS EFFLUENT SAMPLING FORM
ENVIRONMENTAL PROTECTION AGENCY

SAMPLE COLLECTED BY:

GRARY L MINTON

FOR LABORATORY USE ONLY

SAMPLE RECEIVED BY

DATE REC'D

TIME REC'D

MP
4 AM
PM

SAMPLING LOCATION:

FIDELITY #11

DISCH
002

BASIN/SUB-BASIN

TRIBUTARY

BIG Muddy/BEAUCOUP CR/PANTHER CREEK

CARD COL.

1

1

CARD NO. 1

CARD COL.

1

DATE ANALYSES COMPLETED

DATE RESULTS FORWARDED OCT 8 1986

TOTAL TESTS REQUESTED

TESTS RUN

LAB SECTION

CHAMPAIGN

SUPERVISOR

R

CARD NO. 2

CARD COL.

1

3

CARD NO. 3

2-5 NCE BASIN CODE

6-7 PLANT OR STATION NO.

8-10 FIPS COUNTY CODE
(USE ONLY FOR PLANTS)

11-17 B613352 LAB ID NO.

11-17 B613352 LAB ID NO.

11-17 B613352 LAB ID NO.

18 I SAMPLE TYPE CODE
(SEE LIST BELOW)

18 I SAMPLE TYPE CODE

18 I SAMPLE TYPE CODE

19-20 86 YEAR

ARSENIC 19-22

21-22 08 MONTH

BARIUM 23-25

23-24 20 DAY

BORON 26-28

25-26 11 HOUR (NEAREST)

CADMIUM 29-32

27 A TIME OF DAY (A.P.N.)

CHROMIUM (HEX) 33-35

28-30 WATER TEMPERATURE
(DEG. F.)

CHROMIUM (TRI) 36-38

31-33 FIELD D.O.

CHROMIUM 39-41

PH (UNITS) 34-36 8.0

COPPER 42-45

TOTAL PHOSPHORUS 37-40

CYANIDE 46-49

AVG. BOD. 41-44

IRON (T) 50-53 0.4

C.O.D. 45-48

IRON (DISSOLVED) 54-56

PHENOLS 49-52

LEAD 57-60
MANGANESE 61-63 0.24

53-59 FEC COL
(#/100ML)

MERCURY
(MICRO GM/L) 64-66

AMMONIA N 60-63

NICKEL 67-69

NITRATE +
NITRITE AS N 64-66

SELENIUM 70-72

ORGANIC N 67-69

SILVER 73-76

TOTAL N 70-72

ZINC 77-79

T.D.S./
E.C. 73-76

ALL RESULTS EXPRESSED AS MG/L EXCEPT
WHERE OTHERWISE STATED.

TOTAL SUSP
SOLIDS 77-80 11

PLANKTON
(NO/ML) 19-23

FLUORIDE 24-26

CHLORIDE 27-30 1640

SULFATE 31-34

TOTAL SULFUR 35-38

OIL 39-42

M.B.A.S. 43-46

CARBON CHLOROFORM
EXTRACT 47-50

TURBIDITY
(UNITS) 51-54

RESIDUE ON
EVAP. 55-58 2670

VOLATILE SUSP.
SOLIDS 59-62

COLOR (UNITS) 63-65

HARDNESS 66-68

ALKALINITY 69-71 212

TOTAL ACIDITY 72-74 0

PH 8.2-8.0

FREE ACIDITY 75-77

OTHER TESTS REQUIRED

☐ YES (REFERENCE REVERSE SIDE)

☐ NO

SAMPLE TYPE CODES:

A = DOMESTIC WASTE ONLY

E = INDUSTRIAL WASTE ONLY

I = MIXED DOMESTIC & INDUSTRIAL WASTE

S = STREAM, LAKE, OR RECEIVING WATER

T = MINE DRAINAGE OR WASTE

X = OTHER OR TYPE UNKNOWN

SIGN BELOW FOR EFFLUENT SAMPLE

TRANSPORTED BY L Minton

RECEIVED BY

DATE REC'D TIME REC'D AM PM

TRANSPORTED BY

RECEIVED BY

Gage Height (or top of ice) or R.P. to W.S.:

Sampling Techniques: GRAB

Flow conditions (velocity etc.) 200 GPM

Identification Nos on pH and Sp. Cond. meters:

Weather Conditions: HOT PARTLY CLOUDY, WINDY

Comments and unusual conditions (indicate severity): WATER SAMPLE CLEAR